

NATIONAL PARKS

MAGAZINE



Indiana's Unspoiled Dunes

40th Anniversary
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A Golden Anniversary?

AUGUST 14, 1959 will be the fiftieth anniversary of the discovery of Rainbow Bridge in southern Utah. Or will it?

Dr. Neil Merton Judd, former Curator of American Archaeology, U. S. National Museum, believes it will as he has testified earlier in a November 1927 article in *National Parks Bulletin*, forerunner of NATIONAL PARKS MAGAZINE. A more recent article in the October 1955 *Sierra Club Bulletin* by Weldon Heald tends to dispute this claim, but still offers no clear-cut answer to who first discovered the great natural arch and when.

Dr. Judd, himself a member of the 1909 expedition to the bridge, credits Dr. Byron Cummings (until his death president of Arizona State University) with being "the first white man actually to behold the graceful curve of Rainbow Bridge." The Bureau of Land Management of the Department of the Interior has stated in its April-June 1955 issue of *Our Public Lands* that, "On Saturday morning, August 14, 1909, at 11 o'clock, United States Surveyor William Boone Douglass became probably the first white man to see (Rainbow Bridge). Close behind him in a friendly race for discovery was Professor Cummings of the University of Utah." The National Park Service accepts Dr. Cummings as the original discoverer.

Mr. Heald's 1955 article reports a statement by William Franklyn Williams, an Indian trader of Winslow, Arizona, describing two trips he made to the bridge in 1884 and 1885. But as Mr. Heald notes, "he makes no claim to being its discoverer, for he states that he found evidence that other white men had been there before him and he gives the names of some of them."

While Mr. Williams is no longer living, his daughter—to whom the original statement was dictated—was interviewed by Mr. Heald in getting his story. The names mentioned by Williams as being cut on the free end of the arch or written in charcoal on the cliff walls farther down Bridge Canyon were "Billy Ross, a man named Montgomery, Jim Black, George Emerson,

Ed Randolph, and another man named Wydel."

There are doubtless many who feel the same as Mr. Heald did when he said in concluding his article:

"Here is a faded signpost pointing down a trail into the past that would be fascinating to follow to the end. . . . I am curious enough to hope that this account will stimulate some qualified researcher to take this trail back into history and tell us who was the discoverer of Rainbow Natural Bridge—and when?"

★ ★ ★

The time remaining for such research is extremely limited. For within two years the waters of Glen Canyon reservoir will begin to build up and will flood lower Bridge Canyon with many hundred feet of water. (See *The Rainbow Bridge Debate* in the October-December 1958 NATIONAL PARKS MAGAZINE.) Plans for protection of Rainbow Bridge National Monument from the effects of this reservoir water are not yet decided upon according to recent information received following inquiry made of both National Park Service and Bureau of Reclamation personnel.*

Many people are still urging that no protection be given to the monument: (1) because they feel the 57 feet of water beneath the bridge will cause no structural damage to the arch; (2) because they believe that being confined in a narrow canyon, the water will cover only a small part of the monument; (3) because they claim that building protective dams above and below the monument boundaries will cause more destruction of the natural scene than the water beneath the bridge; (4) because they believe it would be nice to be able to float under the bridge in a boat, rather than to have to hike or ride horses in, the hard way; and (5) because doing nothing would save the taxpayers' money.

Others who favor the protective dams (outside monument boundaries) still feel most strongly that the precedent set by permitting a reservoir to encroach on a unit of the national park

system would be infinitely more damaging than any construction activity outside the monument boundaries necessary to protect its naturalness. They likewise are not yet convinced that waters within ten feet of one of the sides of the arch will not have a weakening effect on the bridge. And they are concerned about the silt and debris that would be deposited with each storm within the boundaries of the monument as the waters of the flash floods slow down and drop their load when they hit the calm reservoir surface.

The time for decision is now. Bureau of Reclamation representatives (while urging no protective devices for the monument) warn that the fiscal 1962 budget must have money in it to build such protective dams and the diversion tunnel if we are to get them in before the water reaches the bridge.

While we see problems in either alternative (the only real solution being to lower the height of Glen Canyon dam and reservoir by 100 to 150 feet), we side with the school of thought which believes the monument must be protected as fully as possible from the effects of the artificial reservoir. Unfortunately, building protective structures in Bridge Canyon between the monument and the reservoir appears to be the only way to minimize damage to the monument.

We can understand the feeling of the man who said:

"Let's not put any dams in there—the bridge as an example of natural beauty and wonder would be of more value if it were simply allowed to collapse in the rising water and lie there as a monument to the stupidity of man."

We are nevertheless committed to the principle that, "Every alteration of the natural landscape, (in national parks and monuments) however slight, by such activities as . . . damming of watercourses, is a direct violation of a fundamental principle of national park management."

Within Rainbow Bridge National Monument, and all other national parks and monuments, we feel these principles must be strictly adhered to.

—B.M.K.

*See *Rainbow Bridge Protection Still Pending* on page 12.

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Bruce M. Kilgore, Editor

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ON THE COVER

Extraordinary scenery, a large variety of plant life, magnificent bathing beaches, and splendid opportunities to camp and live in the wild country close to nature—these and more are offered by the Indiana Dunes along the shore of Lake Michigan. But only a small fragment of the original twenty-five miles of dunes remains today. The rest have been lost to industrialization. On page six Dr. Strong describes the remaining opportunity to preserve a sample of this shoreline heritage.—Photograph by Bryan Allen.

THE NATIONAL PARKS AND YOU

Few people realize that ever since the first national parks and monuments were established, various commercial interests have been trying to invade them for personal gain. The national parks and monuments were not intended for such purposes. They are established as inviolate nature sanctuaries to preserve permanently outstanding examples of the once primeval continent, with no marring of landscapes except for reasonable access by road and trail, and facilities for visitor comfort. The Association, since its founding in 1919, has worked to create an ever-growing informed public on this matter in defense of the parks.

The Board of Trustees urges you to help protect this magnificent national heritage by joining forces with the Association now. As a member you will be kept informed, through NATIONAL PARKS MAGAZINE, on current threats and other park matters.

Dues are \$5 annual, \$8 supporting, \$15 sustaining, \$25 contributing, \$100 life with no further dues, and \$1000 patron with no further dues. Bequests, too, are needed to help carry on this park protection work. Dues and contributions are deductible from your federal taxable income, and bequests are deductible for federal estate tax purposes. As an organization receiving such gifts, the Association is precluded by relevant laws and regulations from advocating or opposing legislation to any substantial extent. Send your check today, or write for further information, to the National Parks Association, 1300 New Hampshire Avenue, N.W., Washington 6, D.C.

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Great Basin "Sky Island"

Darwin Lambert

THE PROPOSAL to preserve a remarkable "sky island" rising from the desert of eastern Nevada as part of our national park and monument system moved forward rapidly during the first half of 1959.*

The plan reached high level action this spring with the adoption in the Department of the Interior of this resolution: "The Advisory Board on National Parks, Historic Sites, Buildings and Monuments, having considered and recognized the scientific values of the Wheeler Peak-Lehman Caves Region of the Snake Range, Nevada, finds that it is representative of the numerous Great Basin mountain ranges, and as such is of national significance, and is suitable for preservation as an area under the jurisdiction of the National Park Service."

Findings of the advisory board were based on a thorough study by National

Park Service region four, involving field observations and research. The study was made upon the urging of Nevada's congressional delegation combined with support for the proposed park by the Great Basin National Park Association and other nationwide organizations and by groups and individuals in Nevada. Magazine articles by Weldon F. Heald and a color-sound movie produced by Nevadans contributed significantly to the keen interest that brought action.

Great Basin National Park Association, with headquarters in Ely, Nevada, and members in many states, has coordinated the movement since August 1957. From the time the park was suggested in late 1955, both citizen and official support have been general in Nevada. Immediately upon learning of the advisory board's recommendation, Governor Grant Sawyer announced his

Darwin Lambert, president of the Great Basin National Park Association (an independent organization with headquarters in Ely, Nevada), was the first regular National Park Service employee at the new Shenandoah National Park in 1936. He is a former member of the Nevada State legislature and now serves as editor of the *Ely Daily Times*. To the extent that he may touch on legislative matters, Mr. Lambert writes as an individual; as explained in the contents page, the National Parks Association does not advocate or oppose legislation. Photographs by Irwin Fehr and the author unless otherwise indicated.

enthusiastic support, and shortly thereafter the Nevada Foundation for a National Park was formed—with the only two living former governors of the state, Vail M. Pittman and Charles H. Russell, as co-chairmen.

Exploration of the area during the

AT LEFT is a forest of ancient bristlecone pines discovered in 1957 between Snake Creek and Big Wash on Mount Washington in Nevada's Snake range. Note how the 20-foot diameter specimen at right dwarfs man. This Arctic-alpine region in the midst of the desert has tremendous scientific value.

last four years has revealed amazing ecologic and geologic variety which tell the Great Basin story in terms of natural grandeur. Many features are spectacular and the whole area is so esthetically pleasing that nearly all who have come to look, though arriving skeptical, have become enthusiastic advocates of the park.

Authoritative study has shown that the proposed park, situated near the center of the Great Basin, would represent this vast geographic province superbly and create public awareness of natural scenery different from any now in the national park system. This type of country, from which no streams reach the sea, is unique in North America and rare on the earth as a whole.

As long ago as 1885 a professional geographer, Israel Cook Russell, emphasized the geographic importance and distinctive character of the Great Basin:

"In crossing from the Atlantic to the Pacific, between the Mexican boundary and the central portion of Oregon, one finds a region, bounded by the Sierra Nevada on the west and the Rocky Mountain system on the east, that stands in marked contrast in nearly all its scenic features with the remaining portions of the United States. The traveler in this region is no longer surrounded by the open, grassy parks and heavily timbered mountains of the Pacific slope, or by the rounded and flowing outlines of the forest-crowned Appalachians, and the scenery suggests naught of the boundless plains east of the Rocky Mountains or of the rich savannas of the Gulf States. He must compare it rather to the parched and desert areas of Arabia and the shores of the Dead Sea and the Caspian. . . .

"Diversifying this region are many mountain ranges and broad desert valleys, together with rivers, lakes, and canyons, topographic elements to be found in all quarters of the world, but here characterized by features peculiar to the Great Basin. . . . On the desert valleys the scenery is monotonous in the extreme, yet has a desolate grandeur of its own, and at times, especially at sunrise and sunset, great richness of color. . . . The slanting light brings out mountain range after mountain range in bold relief and reveals a world of sublimity. As the sun sinks behind the western peaks and the shades of evening grow

deeper and deeper on the mountains, every ravine and canyon becomes a fathomless abyss of purple haze, shrouding the bases of gorgeous towers and battlements that seem encrusted with a mosaic more brilliant and intricate than the work of Venetian artists. As the light fades and the twilight deepens, the mountains lose their detail and become sharply outlined silhouettes, drawn in the deepest and richest purple against a brilliant sky."

In the heart of the region the geographer described so glowingly, the proposed park is a "sky island" of forests, streams, meadows and lakes—with even an active glacier but five miles from the desert, five miles in which the changing vegetation illustrates five life zones as though the observer were traveling at supersonic speed more than 3,000 north-south miles on the continent of North America.

Shadscale and sagebrush country, illustrative of the Sonoran deserts, gives way to a belt of juniper and pinon pine which, in turn, changes as we climb to mountain mahogany, often of tree size here, and ponderosa pine, then forests of aspen, white fir, Douglas fir, and as we approach timberline, Engelmann spruce and limber pine.

At timberline on at least half a dozen peaks are forests of immense bristlecone pines, now considered the oldest living things on earth. Each tree is a character, many of them giants thirty feet or more in trunk circumference, majestic in their vivid embodiment of the persistence of life, often grotesque, and absolutely irresistible to the photographer. Above timberline are Arctic-alpine expanses bearing plants such as Geum and moss silene that are characteristic of the Far North.

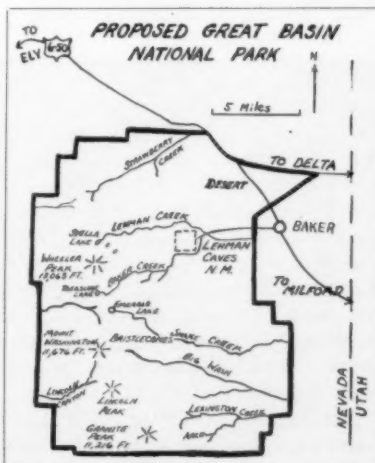
Along the streams in the canyons there are numerous cottonwoods, water birch and willows. Blooming at every level in season are profuse displays of wildflowers—brilliant cacti, wild roses, serviceberry, cliff rose, orchids, shooting stars, lupine, bluebells, desert peach, Oregon grape, red osier dogwood, chokecherry. Manzanita is common on the middle elevations, and its range here overlaps that of the big sagebrush, the two shrubs often form-



ing a strange and characteristic color combination.

From the high country—especially from the summit of Wheeler Peak (13,063 feet above sea level)—the view stretches across the alternating north-south ranges and valleys that mark the Great Basin until, more than a hundred miles distant on a clear day, the shimmering blue mountains blend in mystery with the blue sky. It is even said that with good binoculars you can see the Wasatch Mountains in Utah and then, simply by turning around, see the Sierra Nevada range on the edge of California. The panoramic views of the Great Basin create one of the most memorable impressions of the proposed park. The observer feels him-

Most of the 147,000 acres proposed as Great Basin National Park are presently part of the Humboldt National Forest.





The group (below) exploring the Wheeler Peak environs found an amazing variety of geological features ranging from the lime-stone arch (above) in Lexington



Niles and Louise Werner

Canyon—with an opening large enough to hold a six-story building (note figure on top)—to the delicately carved "tom-tom" formation (below) in Lehman Caves.

self really on an island in the sky, the dry lakes and desert expanses of the valleys so far below on either side seeming ocean-like in the distance.

It is easy for him then to visualize the geologic history of the region—the sand and lime, later to be rock layers, accumulating on the floor of the sea . . . the land rising and falling, folding and faulting, through eons of time . . . vast Lake Bonneville lapping the shores of the island . . . glaciers freezing, growing and grinding on the rocks, then melting away while streams take up the task of sculpturing the canyons and going underground to carve out numerous caves and potential rock arches . . . magmas of molten rock pushing upward into the earth's crust, cooling and crystallizing. . . .

Studies have shown that a truly outstanding National Park Service interpretive program could be developed here—impressive chapters telling the

history of the earth's crust as well as the story of Great Basin ecology illustrated by the varied array of plant and animal associations.

Observations indicate that a "Sky Island Road" might be well hidden on a winding route to connect the intricately-decorated Lehman Caves (a national monument since 1922) with camp and picnic grounds in pleasant groves and meadows. Such a road might feature viewpoints overlooking the "desert-bound" glacier, a high basin of evergreen forests with jewel-like lakes, and the far valleys and ranges. It might also take large numbers of park visitors to one of the great bristlecone forests and to a lime-stone canyon with cliffs in thousand-foot steps and grotesque pinnacles towering into the sky. Properly laid out, such a road would leave untouched nearly all of the wilderness, while trails could carry hikers and horseback riders to remote places of interest.

The area proposed for the park is approximately 147,000 acres, and they are intricately-folded acres with room remaining for the deer, cougar, antelope, coyote, badger, bobcat and numerous other species of wildlife—including elk and the Canadian variety of mountain sheep which were native here but are rare or possibly absent now—to live as nature intended while being seen sometimes by park visitors.

Many of the special features of the proposed park have been discovered only within the last few years. Weldon F. Heald's published description of the active glacier he found in the great cirque of Wheeler Peak in August 1955 started the park movement. Bristlecone pines were known to occur in the area, but it was not until 1957 that the forests of ancient giants were found, and they are still so little explored that no one claims to know the largest tree. Several rock arches were known to exist, but it was just last year that the one in Lexington Canyon was found to be large enough to cover a six-story building.

Investigators of the park proposal emphasized for the first time only last fall that each of more than a dozen canyons has a distinctive personality of its own and that Lincoln Canyon is comparable in the spectacular size and shape of its cliffs and pinnacles, if not



in color, to Zion Canyon. Mountain mahoganies of record size have been found in Lehman Creek Canyon, and in Baker Creek Canyon there are several quaking aspens three feet in trunk diameter.

Opposition to the proposed national park, based on the uninformed feeling, at first quite general, that the area simply could not be qualified for such status, seems now to have disappeared. But there is some opposition from deer hunters and, though fewer than a thousand cattle and three thousand sheep are grazed on the area (and these for a short period only each year) some stockmen seem determined to defeat the proposal if they can.

Most of the area is now part of Humboldt National Forest (about 20,000 acres lying outside the forest on public domain and about 3000 acres being privately owned), but the report widely spread early this year that there is a timber industry which would be ruined by the park has been completely refuted. There is no timber industry here, no logging, and the Forest Service men in charge have publicly stated they do not consider that the area has "commercial" timber.

Similarly, rumors of opposition from mining interests have proved unfounded. Though there are some mining claims within the proposed area, there is no mineral production from them at this time.

Recreational development plans for the 28,000-acre heart of the proposed park, which was designated "Wheeler Peak Scenic Area" by the Forest Service in February this year, calling for a "two-way road" up Lehman Creek to Stella Lake and inviting resort and summer home development within the proposed park, appear to be held in abeyance now, but poised to go forward at any sign of weakness in the park movement. To protect the area, there must be action soon, before population and development pressures, now rapidly growing, become too strong.

If the vast Great Basin geographical province is ever to be represented in the national park system (except by Death Valley National Monument which, though superlative in its own right, represents extreme desert conditions not typical of Great Basin flora

and fauna), the opportunity exists now in Nevada's Wheeler Peak area. Investigations have shown this area to be the superlative example of the Great Basin type, with scenic, scientific and recreational aspects that are truly outstanding.

Support for the proposal is at a high level, nationally and within the state which is most concerned. Surely, in the interests of the present and future people of the United States and of the world, we who know the importance of preserving our heritage before it is too late, cannot now fail to grasp the opportunity. ■

**See National Park Proposed for Nevada by Weldon F. Heald in the July-September 1957 issue of NATIONAL PARKS MAGAZINE and Exploring the Baker Creek Trail by Joseph F. Carithers in the April-June 1958 issue.*



Near the marble cliffs of Mount Washington (above) are found a part of the great variety of plant and animal life of the region. No streams from this country reach the sea.



Niles and Louise Werner

A Sierra Club party (above) near the summit of 13,063-foot Wheeler Peak. Matthes Glacier (below), in the cirque below the summit, was discovered by Weldon Heald in 1955.



Indiana's Unspoiled Dunes

R. M. Strong

THE INDIANA dunes are part of what was once a crescent-shaped moorland that extended around the south end of Lake Michigan. It included the land now occupied by the city of Chicago on the west. This area had a wide sandy beach, ponds, lakes, swamps, marshes and sand dunes. The dunes were low in the west portion, usually only several feet high or less; this low region is now occupied by cities including Gary, Indiana.

East of Gary, there is a region of high dunes, sometimes nearly 200 feet high. The residential towns of Ogden Dunes and Dune Acres occupy many of these tall dunes, but there are still unspoiled high dunes extending for over six miles along the shore of Lake Michigan (see map). This region is divided by Dune Acres. Fortunately, both Dune Acres and Ogden Dunes have preserved the natural features of the dunes as much as feasible, but they are not open to the public.

A three-mile stretch, east of Dune Acres, is preserved in the Indiana Dunes State Park. There is a three and one-half mile section between Dune Acres and Ogden Dunes which is still mostly unspoiled, but land speculators have for many years wished to industrialize it. They have been supported by small business and by steel operators

who have influenced a number of Indiana politicians. For many years, they have promoted construction of an unneeded harbor just east of Ogden Dunes at federal expense, and this additional harbor would be expensive to construct and maintain. Even the Army engineers have repeatedly disapproved this harbor plan.

The Indiana Dunes are world famous scientifically. There are none finer anywhere in the world. Scientists coming to Chicago have mentioned them as being of as much interest to them as Grand Canyon, Yosemite, and Yellowstone National Parks. Here we have dunes with diversified conditions, and they are still developing along the beach with other dunes thousands of years old, sometimes over a mile back from Lake Michigan. In between some of these dunes there are ponds and swamps. A long marsh extends for a number of miles just south of most of the dunes. Physical conditions provide for a great variety of plant and animal life. Here northern species meet southern species, and there are desert-loving species, such as the prickly pear cactus. More than one thousand species of plants including fine ferns and twenty-six species of orchids, occur in the dunes region, either among the dunes or immediately south of them

Dr. Strong has been active in the research and conservation field since 1888, when he joined in founding the Wilson Ornithological Society. Although "retired," he is research associate in anatomy at the Chicago Natural History Museum, honorary president of the Illinois Audubon Society, and chairman of the Conservation Council of Chicago. To the extent that he may touch on legislative matters in this article, Dr. Strong writes as an individual. The National Parks Association does not advocate or oppose legislation.

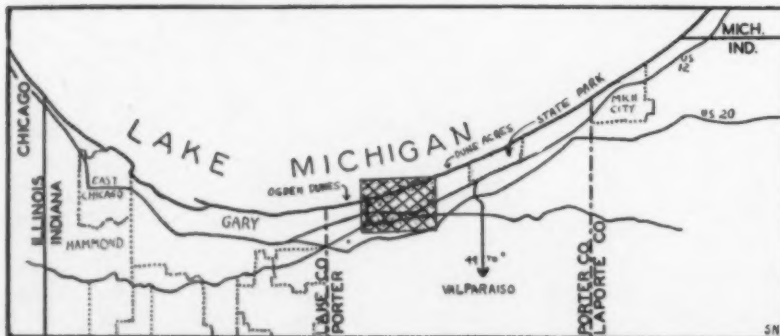
in the marshy area. More than one hundred species of birds have been found breeding here, and an additional hundred species have been observed during the migration seasons. About thirty mammals live in the area, including foxes, skunks, opossums and chipmunks.

I first visited the Indiana dunes in July, 1897, with Henry C. Cowles, then a graduate student at the University of Chicago. (He later made the dunes famous scientifically, and he was chairman of the department of botany at the University of Chicago for many years.) We took a streetcar and eventually reached a low dune wilderness where I was thrilled by the abundance of species of plants new to me. That area is now the industrial city of Whiting, Indiana.

During the period 1905-1914, I took classes of students at the University of Chicago to the high dune region east of Gary near Miller. About 1907, some of us had a dream of promoting a dunes preserve, but the persons with whom we talked thought the whole region from Miller to Michigan City, a distance of about twenty miles, would always be a wilderness, a nearly universal myopia.

An effort to establish a national park in the dunes between Miller and Michigan City was made several years

Exclusive of the small state park, only 3½ miles (crosshatched) of the 25 miles of dunes stretching from Gary to Michigan City remain undeveloped. They, too, are now being eyed as potential sites for steel mills and harbors.



later. Mr. Stephen T. Mather, the first director of the National Park Service, presided at a hearing in Chicago with the support of the secretary of the Department of Interior, Mr. Franklin K. Lane. About four hundred persons attended that hearing, and they included some of the most distinguished citizens of Chicago and northern Indiana. It was proposed to establish a Sand Dunes National Park extending from Miller to Michigan City. There was great enthusiasm and no opposition. Even Indiana politicians approved. But the country had just entered World War I, and the project was lost in the concentration on the war. Later (1923), persons who were active in the promotion succeeded in getting establishment of the Indiana Dunes State Park, which extends for about three miles along the Lake Michigan shore east of Dune Acres. The park is very popular, and it is much overcrowded on warm holidays. As many as 10,000 persons have visited the park on a single day. Great numbers of people have been unable to enter on special holidays.

Occasionally, I have climbed one of the taller dunes, Mount Tom (192 feet high), and have enjoyed the delight of looking out for miles over mostly-forested wilderness or over Lake Michigan. On some days when atmospheric conditions were right, upper portions of the tall buildings of Chicago could be seen some thirty-five miles away, as the crow flies—a looming effect. I had sensations similar to what one gets on a mountain top even though the mountain would be many times higher. Others have expressed similar reactions.

The development of these dunes can be observed at the beach when the sand is dry and there is a strong wind off the lake. Wind-blown sand accumulates about obstacles which may be tufts of grass or shrubs that grow in sand. As these plants become submerged by sand, they send out new roots and establish higher positions, a process that can continue for a long time. Cottonwood trees get started on the larger dunes, and they produce new root systems as sand piles up about them. In this way, permanent dunes are formed. Other dunes may have tops or sides not well covered by vegetation, and they move away

from the lake as strong winds blow their tops or sides away. Blowouts occur when winds erode large areas between dunes.

The fate of so important a region as the Indiana dunes is not just the business of land speculators and of men who wish to exploit them. This was well expressed by Dr. Abraham Flexner (then secretary of the General Education Board and a member of the Board of Education of New York), at the previously mentioned hearing in 1916.

"Whether the sand dunes on the shores of Lake Michigan are to be preserved or not might seem the business of the people of Indiana, or perhaps, the business of the people of Chicago. The question may fairly be asked: Why does this concern a man who lives in the city of New York? May I say, Mr. Secretary, that in no sense is this a local question. People who live in the city of New York have just as near and dear an interest in the preservation of recreational zones and educational facilities on the shores of Lake Michigan as they have in the preservation of similar objects in Yellowstone Park, or the Yosemite Valley, or Niagara Falls, or in the city of New York itself."

The Advisory Board on National Parks, Historic Sites, Buildings and

Monuments at a meeting April 28, 1959 recommended that Secretary of the Interior Seaton report favorably on several park proposals now pending in Congress including bills to establish a national monument in the Indiana dunes.

Forty-three years ago this October, Stephen Mather described the value of the Indiana Dunes:

"The sand dunes are admittedly distinctive because they best illustrate the action of wind on the sand accumulated from a great body of water. No national park or other federal reservation offers this phenomenon for the pleasure and edification of the people, and no national park is so accessible. Furthermore, the dunes offer to the visitor extraordinary scenery, a large variety of plant life, magnificent bathing beaches, and splendid opportunities to camp and live in the wild country close to nature.

"If the dunes of this region were mediocre and of little scenic or scientific interest, they would have no national character and could not be regarded as more than a state or municipal park possibility. My judgment is clear, however, that their characteristics entitle the major portion of this area to consideration as a national park project."

Can their value be less today? ■

The natural beauty of the Dunes would be appreciated anywhere in the country. Their preservation is even more important because of their proximity to heavily populated sections of Indiana and Illinois.

Bryan Allen





Building Better Rangers

Jean Valens Bullard
A Ranger's Wife

THE SAFETY of his baby daughter was far from the mind of the ranger from Mount Rainier as he aimed a firehose at the burning house in Yosemite Valley. He and twenty-four others were simply learning techniques of fighting building fires. This valuable training was being given by a team of experts for use in a variety of future situations by these guardians of our national parks.

Less than three months later back at Mount Rainier National Park, Washington, this same ranger was able to rescue his tiny daughter from a flaming building before she was overcome by smoke. He also minimized property damage by proper control of drafts while quickly putting out the fire.

This and a great variety of other useful talents are being taught at one of the most unusual schools in the world, now held twice a year at the training center for rangers in Yosemite National Park, California. Here uniformed men from National Park Service areas all over the country attend an intensive three months training course during their first year of service. This includes all new rangers, naturalists, historians, and other personnel whom the visitors meet in the familiar green uniform with the broad brimmed hat. The content of the course is what makes the school unique.

Safely lowering an injured climber down the sheer face of a granite cliff is not something one learns in kinder-

garten or college. Expert climbers teach this at the Yosemite Training Center. Rock climbing ability comes in handy when visitors get stranded in mountainous areas. One result of last year's training was the organization of a new rescue team by the rangers at Crater Lake National Park.

If a skier should break his leg in Rocky Mountain National Park, the Yosemite-trained rangers will know how to administer first aid and transport him to safety. They will also know what to do if a visitor is overcome by extreme heat, a problem in Death Valley National Monument. The intensive first aid course given by National Red Cross instructors is adapted to widely differing conditions and areas in which a ranger might have to operate.

AT DUSK of the third night of a search, bloodhounds picked up fresh scent of four-year-old Shirley who had been lost in the high Sierra country of Yosemite. The following morning three rangers and several other searchers came upon an isolated meadow. There sat a little girl in tattered clothes sunning herself on a fallen log. She was clutching a toy dipper and smiled when she saw them. "I saw a bear, but he was lost too," she explained.

Many different skills are necessary to search for lost visitors in the greatly varied terrain and weather condi-

During her ten years as a ranger's wife, Jean Bullard has lived in Mesa Verde and Yosemite National Parks, Wupatki, Tumacacori and Aztec Ruins National Monuments, and is now in Death Valley, where her husband is chief park naturalist. True devotees of the parks, the Bullards spend their vacations with their four children camping out, hiking or skiing in national park areas. Photographs by National Park Service.

tions found in our national park system. Trainees go out in the field with a pair of bloodhounds and their master to get first-hand experience in this method of search and rescue.

Desperados, including prison escapees, stolen-car thieves, bank robbers, and even murderers, occasionally try to hide in Park Service areas. Law enforcement can be a tricky and dangerous business, so rangers must be skillful in the use of a revolver. They must know how to apprehend law violators and protect themselves while doing so. Special instructors from the Federal Bureau of Investigation come to Yosemite to conduct these essential classes.

The symbol of the ranger in his green uniform, characteristic ranger hat, and his friendly, courteous manner is one of the main indications to many people that they are in an area administered by the National Park Service. Visitors may encounter him

as a guide through the archeological sites at Aztec Ruins National Monument, as interpreter of the biology of the Everglades, as historian at Gettysburg, or as rescuer of a fallen climber in the Grand Tetons.

WHY DID the Indians build their houses so far from the railroad?" asked a young lady at a campfire program in Mesa Verde National Park. Tactfully the ranger-naturalist pointed out that railroads in Colorado were built over 600 years after the cliff dwellers deserted Mesa Verde. Rangers must develop the technique of answering patiently and kindly even the most unlikely questions without embarrassing the visitor. Practice and discussion of methods of handling visitors are a vital part of the interpretive training given at the Yosemite training center.

"Do not feed the bears!" warns the ranger on the entrance station, and he means what he says. By tactfully explaining that he wants to preserve the visitors as well as the wildlife, he is more successful in protecting both. A ranger who has learned from experts the principles and practices of conservation and preservation, will be able to explain intelligently the all important WHY to the visitors.

In enforcing laws, trainees learn to explain what is wrong to the offender and tell him why he should not destroy the trees or pollute the water supply. A thoroughly convinced visitor not only would never repeat the offense, but does not hesitate to tell others why the laws should be obeyed. Thus the emphasis is more on education for cooperation than on punishment.

In order to become acquainted with all of the more than 180 National Park Service areas, each trainee is responsible for giving seven or eight short talks on different areas as well as a more detailed talk on the area in which he is stationed. During these evening get-togethers the men gain practice in interpretation while they all benefit from the information presented. On other evenings the wives and families of trainees are invited to join in viewing color movies on many Park Service areas.

Enthusiasm for the ideals and knowledge of the purposes of the National

Park Service is an integral part of becoming a permanent ranger. Men from many different positions with the Service come to the Training Center to explain the parts they play in protecting or interpreting the areas. In order to work as a team it is important that the trainees appreciate and understand the functions of men who work in different departments. A man who wants to become a chief ranger will better understand the part played by the naturalists and their museum staff. Historians can appreciate the problems rangers are up against in trying to protect their areas efficiently.

Field trips to the regional office in San Francisco and to Muir Woods

National Monument enable the men to study different levels of administration in action. Yosemite itself is an ideal on-the-spot laboratory. There the trainees meet with the superintendent and various members of his staff to learn how a big national park is run. They also study the operation of the Washington, D. C. office, and either the director or assistant director of the Service visits each class.

THIS COUNTRY of the Yellowstone, the whole of it, should be set apart as a great national park," Judge Cornelius Hedges suggested enthusiastically. "There ought to be no private ownership of any portion of

New national park rangers attending the three-month course at the Yosemite Training Center learn techniques of fighting building fires (opposite page) and rock climbing and evacuation methods (below).





The author's husband, park naturalist Bill Bullard, instructs trainees in how to lead guided trips. Practice and discussion of methods of handling visitors are a vital part of the interpretive training given at the center.

this region." The great idea of our first national park was born the chilly evening of September 19, 1870* in a campfire circle beside the Firehole River in what is now Yellowstone National Park. The party of men had been exploring and surveying this area of natural wonders for more than three weeks. They discussed late into the night the exciting possibilities of a national park to be owned and enjoyed by all of the people.

History of the National Park Service is presented as a living subject to the ranger trainees by various officials. Dr. Harold C. Bryant, former superintendent of Grand Canyon National Park, was a recent speaker at the Training Center. Although Dr. Bryant is retired from the Park Service, he is still active in promoting the preservation of our great heritage. Many of the trainees consider such talks among the most inspiring aspects of the whole school.

More than half of the trainees are married. Wives and families are housed in government trailers half a mile from the museum where classes are held. It is a worthwhile experience for these wives to live three months in Yosemite, to be able to meet and talk with other wives from very different areas. They attend meetings, talks, and movies at the Rangers Club with their husbands.

*See letter by Hans Huth on page 16 regarding the first national park.

An enthusiastic wife is a major asset in the National Park Service. During the early years in the Service a ranger is usually transferred every two or three years to broaden his experience. A wife must be able to cheerfully pack up the family and move from mountain to desert or vice versa on a few weeks' notice. A ranger's family has no idea from one Christmas to the next where they might be stationed.

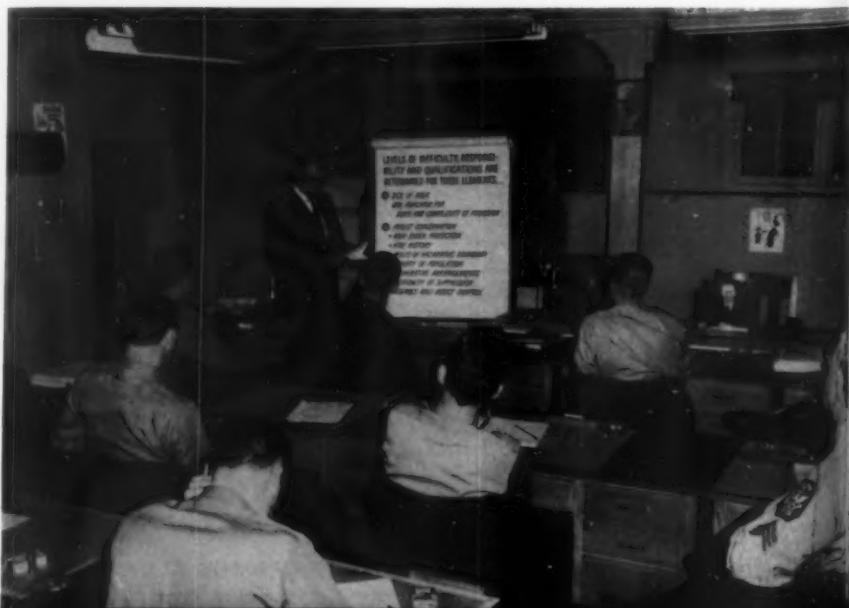
More than one hundred men have graduated in the first two years of the training course, and they are now back home on their jobs. They are protecting and interpreting our National Park

Service areas from Hawaii to the Everglades, from Ocmulgee National Monument to the Virgin Islands, and from the Statue of Liberty to Mount McKinley in Alaska, as well as in scores of large and small areas in between.

Mission 66, the \$800 million program to overhaul our national parks by 1966, should provide adequate roads, trails, buildings, and other facilities for many more than the present sixty million visitors so that they might enjoy their parks to the fullest without destroying them for future generations. Frank F. Kowski, able director of the school at Yosemite, has said, "Our Training Center will provide for a parallel development of personnel to insure proper use of Park Service areas." Mr. Kowski and his assistant, Robert J. McIntyre, have conceived and executed a fine program which packs an amazing amount of training into three concentrated months. If the armload of printed reference material which the trainees bring home with them is any indication of what they retain in their heads, the school is indeed an outstanding success.

Citizens who value their national parks and who wish them preserved for posterity—yet available for present enjoyment—should not underestimate the significance of the establishment of a school of this caliber. It is a secure feeling for the future of the parks to know that now all of the permanent park rangers will be uniformed but not uninformed. ■

While Mission 66 is aiming to overhaul the physical facilities of the parks, the Yosemite Training Center hopes to provide a parallel development of personnel to insure proper use of the areas. One hundred men have graduated in its first two years.



Your NPA in Action

Army Blackens White Sands

Late in May, 1959, a large missile from the White Sands Proving Ground near Alamogordo, New Mexico, went out of control and landed within White Sands National Monument. According to a report received from former Western Representative Joseph Carithers, the missile fell at a point about two miles northeast of the monument's heavily-used picnic area, burying itself about eighteen feet in the sand. Attempts to remove the missile proved difficult, and the Army, (apparently over the objection of the Superintendent) is said to have blown up the huge object. The explosion is said to have blackened "several acres of dunes" and spread chemicals over a wide area. Subsequently a lake formed in the center of the crater.

Through a letter from Executive Secretary A. W. Smith, the National Parks Association has entered a protest with Secretary of the Army Wilbur M. Brucker against use of the monument and the air space above it in the manner described. No official statement is yet available from Department of the Army or Department of the Interior sources as we go to press.

Concessions in Great Smokies

In a recent letter to Park Service Director Conrad L. Wirth, Executive Secretary Anthony Wayne Smith has raised the question of the appropriateness of plans for establishment of two concessions stores in the Cades Cove and Smokemont campground areas of Great Smoky Mountains National Park, Tennessee-North Carolina. Cades Cove is situated in the western end of the park, approximately thirty-six miles from Gatlinburg, Tennessee, fourteen miles from Townsend and eleven from the nearest store. The other store at Smokemont would be on the trans-mountain highway through the park between Gatlinburg and Cherokee, approximately six miles from Cherokee.

Mr. Smith expresses the opinion that placing concessions in locations which are but a short drive from nearby towns "is a great mistake. . . . This creeping commercialization of our

parks, particularly the eastern parks,—which are going to be hard to protect from overcrowding in any event—causes us great concern."

In reply, the Park Service has stated that, "We believe the proposed stores are the minimum that can be logically furnished to provide things that are forgotten, needed in emergencies, or required to replenish supplies of the camping party which plans to use the campground as a point from which to enjoy other park facilities and interpretive programs."

New NPA Groups Established

Five more NPA Groups have been established in recent months in various parts of the country: (1) A Texas Coast NPA Group under the chairmanship of Armand Yramategui, 2520 Calumet Drive, Houston 4, Texas. (Dr. Clarence Cottam of Sinton, Texas also serves on this group, whose prime concern at the moment is the Padre Island seashore area); (2) a Grand Canyon NPA Group made up of Weldon F. Heald, 2137 East 8th St., Tucson, Arizona, Chairman; Arthur Newton Pack, William Carr and Joseph Wood Krutch; (3) an Adirondacks NPA Group headed by Victor H. Cahalane of Albany, New York; (4) a Lassen Volcanic Park NPA Group with William J. Losh of 251 Kearney Street, San Francisco 8, California as chairman and Phil Hyde and Robert Frenkel as members; and (5) a Potomac Valley NPA Group made up of John Cover, 3731 39th Street, N.W., Washington, D. C., chairman and Ellery Fosdick.

The establishment of Yosemite and Great Smoky Mountains NPA groups were reported in March 1959.

NPA Western Office Closes

The National Parks Association closed its Western Field Office on July 1, 1959 as part of a general reorganization of administration and structure. It is expected that the NPA Groups being established in various parts of the country will serve as an effective network for maintaining contact with problems of the parks and monuments.

Western Field Representative Car-

ithers resigned as of July 1, 1959 and will be continuing his work in the conservation field.

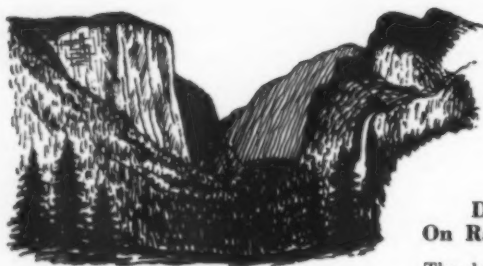
SCP Underway

This summer's Student Conservation Program is already well underway in Olympic National Park, Washington, and Grand Teton National Park, Wyoming. Under the general leadership of Elizabeth Cushman, Director of the program, and Ailene Kane, SCP Representative, some fifty volunteer high school, college and graduate students are helping always-understaffed Park Service personnel to accomplish much-needed tasks, and at the same time are gaining valuable training and experience in national park conservation. Specific work and off-duty supervision is provided by Mr. and Mrs. John Dolstad at Olympic and Mr. and Mrs. Albert Nelson at Grand Teton. (See *A Worthwhile Summer* in the April-June 1958 NATIONAL PARKS MAGAZINE.)

Board Members Attend Conferences

Two members of the Board of Trustees will be representing the Association at conservation conferences in Colorado and Texas this summer. Weldon F. Heald of Tucson, Arizona, will attend the Western Resources Conference from July 13-17 in Boulder, Colorado. Sponsored jointly by the University of Colorado, Colorado State University, and the Colorado School of Mines, the session brings together educators and students in an effort to build towards a continuing program of graduate study and research in the conservation and development of the resources of the west.

Dr. Clarence Cottam of Sinton, Texas, will attend the annual conference of the Conservation Education Association from August 17-20 at Sul Ross College in Alpine, Texas. Theme for this year's meeting is "Developing a Program for In-Service Training in Conservation Education for the Public Schools." Membership in the CEA is open to anyone interested in any phase of conservation education. CEA President is C. W. Mattison, U. S. Forest Service, Washington 25, D. C. ■



Conservation News Briefs

Setback for Padre Island

The Texas House of Representatives has adjourned without voting on a joint resolution authorizing the federal government to acquire part of Padre Island for an addition to the national park system. This in effect killed the bill which had been passed by the Senate. The joint resolution was similar to Senator Yarborough's bill in the U.S. Senate. South Texas representatives had tried to reduce the size of the proposed park area to only thirty miles of the 110-mile long island. The resolution's sponsor, Representative Daily, accused these congressmen of speaking for a small group of private developers, and maintained that not less than a forty to sixty mile stretch should be considered for the seashore area.

Action seemed particularly urgent this session due to a recent decision of the Texas Supreme Court which defined the line between public and private property along the Texas coast as the "mean higher high tide." Citizens fear this may result in the loss of much of the present public land to adjoining private landowners and the virtual exclusion of the public from shoreline recreation areas. It also will probably increase the cost of acquisition of land for the Padre Island National Seashore, if and when authorized.

No Elk Hunting in Tetons

Secretary of Interior Fred A. Seaton has announced that elk hunting, which has been permitted in Grand Teton National Park, Wyoming since 1950 as a herd control measure, will not be required during the 1959 hunting season. Concern had been expressed by the Park Service over the downward trend of the elk population within the park. Director Wirth made it clear that the hunting ban for the 1959 season is just a trial measure. Public Law 787, which provides a program to insure the continued conservation of elk within the Grand Teton National Park, permits the reduction of elk in certain portions of the park when found necessary for their proper management and protection.

Decision Still Pending On Rainbow Bridge Protection

The decision about how best to protect Rainbow Bridge National Monument in southern Utah from the effects of Glen Canyon reservoir in northern Arizona has yet to be made by Secretary of Interior Fred A. Seaton. Two of his bureaus—Reclamation and National Park Service—are studying the problem. (See *The Rainbow Bridge Debate* in the October-December 1958 NATIONAL PARKS MAGAZINE.)

Recent conferences with Bureau of Reclamation and National Park Service personnel reveal that the protective downstream barrier dam location tentatively accepted by the two bureaus is 3000 feet below the downstream monument boundary. This dam would be 185 feet high.

Many conservationists believe the narrow entrance to Bridge Canyon where it joins Aztec Creek Canyon (about one mile downstream from the monument) would be a preferable location. The dam at this site would need to be 245 feet high but would be extremely narrow at its base and would protect a greater part of interesting lower Bridge Canyon. Either location would require a pumping plant to remove the water that falls between the small upstream diversion dam and the downstream barrier dam.

The proposed upstream diversion dam would be only 25 feet high and would be located about three-fourths mile above the upper monument boundary. This dam would divert the water from Bridge Creek through a tunnel into Aztec Creek.

Meanwhile the bulk of Glen Canyon Dam is rising across the Colorado River—sixteen miles upstream from Lees Ferry, Arizona. Within two years it may begin to back water upstream fifty-two miles to the junction of the Colorado and Bridge Canyon. Then as the reservoir water level rises to its maximum surface elevation of 3711 feet, the water will move on up through Rainbow Bridge National Monument, putting 120 feet of water at its lower boundary and 57 feet beneath the famous arch—unless the protective barrier dam is built in Bridge Canyon.

Alaskan Fire Control Cut

Forest-fire control on more than 225 million acres of Bureau of Land Management forest and tundra lands in Alaska

will be seriously hampered this next year by lack of funds, the National Wildlife Federation reports. Only \$387,900 has been appropriated for pre-suppression work for fiscal 1960. While this is the full budget request, it is \$250,000 lower than the previous year. The additional \$250,000 would be required to continue the vital smoke-jumper program and other fire detection and suppression programs initiated last summer. In 1957, uncontrolled lightning fires destroyed plant cover on five million acres of these largely inaccessible areas. Unless additional funds are included in supplemental appropriations, the Federation reports, the pre-suppression programs initiated in fiscal 1959 will have to be terminated.

Interior Backs Wilderness

The Department of Interior has endorsed the principle of statutory recognition of wilderness values. In its report sent to Congress on June 19, Secretary Seaton said: "It is time that wilderness and allied values be given greater recognition—their rightful place—in the statutes relating to management, development, conservation and use of Federal lands and associated resources." Therefore, he continued, "We . . . urge that Congress give serious consideration to taking action now to initiate the establishment of a wilderness system by granting existing wilderness areas statutory protection. Our children's children should be assured of the opportunity to enjoy the magnificence of the natural beauty of these wilderness areas."

Just previous to this, The United States Junior Chamber of Commerce at its 39th annual convention in Buffalo, New York, adopted a resolution endorsing the Wilderness Bill now pending in Congress.

Birds Caught in Squeeze

Millions of North America's waterfowl, forced out of their ancestral nesting grounds by prolonged drought, are being prevented from attempting to find new nesting areas in Canada by an ice line which is breaking up unusually late this year. The result is that the waterfowl, which were expected to nest and produce more birds for hunters and for posterity, are squeezed in between two natural enemies which they cannot overcome—

dry land and dust at their rear, forbidding ice at their front.

At the peak of good water years, in 1955, a survey showed an estimated six and a quarter million potholes and ponds in the southern portions of Alberta, Saskatchewan and Manitoba, and in North Dakota. These ponds varied from a quarter of an acre in area to ten or fifteen miles in diameter. The survey this year estimates a 68 percent decrease in these water areas.

While proclaiming no direct connection between this situation and pothole drainage in the prairie states, the National Wildlife Federation notes that the presently dry potholes which are now being plowed up will become eligible for federal drainage subsidies when the rains come. This will mean a continued drought for waterfowl. They report that in southern Manitoba and Saskatchewan, agricultural offices, which four or five years ago appropriated funds with which to drain, are taking another look. Drainage in the southern provinces has come to a halt. An encouraging change in attitude

is also reported in several important pothole counties of western South Dakota. Until just recently, drainage was the most popular permanent-type practice used by the U.S. Department of Agriculture in South Dakota to attract and enlist farmers in the Agricultural Conservation Program and the Soil Conservation District movement. It was believed that once farmers entered these programs they could then be persuaded to adopt conservation practices more sorely needed than drainage. But greater efforts have been made in this region to eliminate wetlands through drainage than to initiate desperately needed practices such as contour farming.

Much of the glaciated portion of eastern South Dakota is characterized by undulating to steeply rolling topography overlain with shallow light soils subject to severe wind and water erosion unless intensive conservation practices are applied to cropland.

MEETINGS: *Conservation Education Association*, August 17-20, Sul Ross College,

Alpine, Texas. 1959 theme is "Developing a Program for In-Service Training in Conservation Education for the Public Schools."

American Ornithologists' Union, August 25-30, Saskatchewan Museum of Natural History, Regina, Saskatchewan, Canada.

Soil Conservation Society of America, August 26-28, Rapid City, South Dakota.

American Institute of Biological Sciences, August 30-September 3, Pennsylvania State University, College Park, Pennsylvania.

International Association of Game, Fish and Conservation Commissioners, September 14-16, Fort Harrison Hotel, Clearwater, Florida.

National Recreation Congress, jointly sponsored by the National Recreation Association and the American Recreation Society, September 28-October 2, Hotel Morrison, Chicago.

GUIDED TOURS AGAIN AT CRYSTAL CAVE

For the past two years, visitors to Crystal Cave in Sequoia National Park have been permitted to make self-guided tours of the area. Protests have arisen because of the accumulating damage, and it has now been announced that ranger-supervised tours will be resumed in Crystal Cave in 1959.

A dangerous possibility in the concept of the self-guided tour in a decorated limestone cave is that some other park or similar area may attempt the same approach. The assumption is made that rangers and guides can be eliminated or cut to a bare minimum of posted sentinels, and that the public can be casually dropped in at one entrance of a cave and removed at an exit. The primary fallacy in this concept is that cave decorations such as delicate stalactites and draperies cannot be handled freely. It is impossible to adequately educate visitors in this respect; children, careless or forgetful adults, and the omnipresent small percentage of vandals all take their toll of the fragile calcite forms.

Unlike Sequoias or rare wildlife, caves do not renew themselves—at least not within the memory of man. We measure the lifespan of the Big Trees in thousands of years. Cave ages are probably to be

measured in units of tens or hundreds of thousands; the growth is so slow that our information is scanty and incomplete. Consequently, carelessness or vandalism may cause irremediable damage.

Exactly how much damage was done at Crystal Cave? Probably this will never be completely determined, since no public records exist for the period prior to the self-guiding experiment. During an investigation made last summer, four vandalism incidents—two of them causing permanent damage to the cave—were witnessed within a period of five hours. Recognizing the situation, the Park Service has discontinued self-guided tours.

Crystal Cave, and many other protected caves, face serious problems in future years because of overcrowding. Some of these problems are solvable; for others there are no adequate solutions at present. In any case, the answer is not to utilize policies which destroy the caves in a single generation, as might have been the case at Crystal. There may be complaints from visitors who have to wait for a guide and then adjust themselves to the pace of a supervised tour, but tourists who might chafe at the restrictions of a formal tour will at least be able to visit the cave again ten or twenty years

in the future; there would have been no such future under the self-guiding system.

R. deSaussure

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A guided tour through
Crystal Cave, California.



The Editor's



Bookshelf

A YEAR IN PARADISE, by Floyd Schmoe. Harper & Brothers, New York, 1959. 235 pages. 23 photos plus drawings by author. \$4.50.

This is a delightful account of the experiences of Floyd Schmoe and his wife Ruth on the slopes of Mount Rainier—specifically Paradise Valley—in Mount Rainier National Park, Washington. Here he worked as caretaker, national park ranger, mountain guide, and park naturalist. He developed a deep love for the mountain, and this affection, plus a warm and vivid style, enables him to give a true picture of a glorious wilderness.

Magnificent Mount Rainier was shrouded in snow and ice, and Mr. Schmoe and his young bride hiked into a world of silent whiteness when they first met Paradise in midwinter. They were caretakers in the resort hotel and their many experiences with the winter birds, animals and the great dark hotel itself are most entertaining. After this winter meeting, the couple lived in the park for several years and Mr. Schmoe gained an intimate and sympathetic knowledge of this beautiful wonderland.

In telling of this superb mountain and its nature lore he follows the seasons turn, from icy winter to spring, (when "everything happens at once") to summer (though brief, "the peak of the year," with the exploding acres of exquisite and colorful blooms, the exciting trail trips with a camera) to autumn and its Indian summer.

The book is more than a record of experiences. He describes his summit climbs, the technique and hazards of

these climbs, colorful contacts with the wild things and observations on their behavior, a little of the history of the area and the geology of the mountain, and descriptions of the secrets of the abundant plantlife.

As one who has lived on and loved the mountain for many years and has hiked its many trails, I can say that Mr. Schmoe has portrayed with great skill the essence of the high country, the wild creatures, the flowers and the great mountain itself. In a most comprehensive and intimate style he takes the reader around the seasons from a vantage point in a perfect "Paradise" of the high country.

—Preston P. Macy,
Superintendent
Mount Rainier National Park

WILD PARADISE, by Guy Mountfort. Houghton Mifflin Co., Boston. 1958. 240 pages. Illustrated. \$7.

By now, a great many people in the United States have seen Roger Tory Peterson's superb film, *Wild Europe*. To them, this book will be a particularly fascinating renewal of acquaintance with one of the most remarkable wild areas remaining in Europe. And those who first read the book should try to see Dr. Peterson's film to climax their experience.

The area is in southwestern Spain, where the Guadalquivir River reaches the sea through vast marshes, surrounded by plains varied with stands of cork oaks, scrub thickets, and with bordering sand dunes. For the last 500 years the area has been owned by titled Spanish families who maintained its wild character. It has been used as a private hunting preserve, but in so careful a manner that the wildlife has never been depleted. While the present area, owned by three men who cooperate in its protection, is smaller than the original holdings of the Dukes of Medina Sidonia who owned it from the late fifteenth century until 1901, it still contains about 67,000 acres. And much of the surrounding country is kept in a similar condition. No roads lead into the Coto Donana, and the great marshes and

dunes protect most of its boundaries from intrusion. In this preserve half the bird species of Europe have been seen, many in tremendous numbers. Red and fallow deer, wild boar, and lynx are found in the wooded areas. Many creatures formerly widespread in Europe can now be found only here with any certainty. Here are great bustards, the Spanish imperial eagle, griffon vultures, and many other birds of a rarity to make any ornithologist agog.

But these wonders are not for the casual traveler to explore. The present owners are keenly aware of the value of the area as one of the last remaining sanctuaries in Europe. Only rarely are scientific parties permitted to study the Coto.

This book is an account of the most recent studies, conducted in 1952, 1956 and 1957. A distinguished international group enjoyed the hospitality of Don Mauricio González Díez at the old hunting lodge in the heart of the Coto. While there were many difficulties and hardships in making the studies and pictures, the photographs are superb, and generous, although we may regret that this American edition was not able to keep the eight color plates which graced the English edition (*Portrait of a Wilderness*, Hutchinson, London, for 30 shillings, or about \$4.20).

For those who wish a glimpse of the Europe that once existed, and for those who want to know such scholarly things as the ecology and migration of the bird population of southern Spain, this book will have equal appeal. The author, in his preface, states eloquently the feelings of those of us who are appalled at the all-devouring onrush of mechanized civilization. He summarizes this book well in saying, "The story of the Coto Donana expeditions is a reminder that although much of Europe's natural heritage has been lost or destroyed, there are fortunately still a few, a very few, small areas of wilderness remaining where nature reigns unchallenged in all her splendour."

—Shirley A. Briggs.

To Further Our Work

Your Association is entirely dependent for its income on your membership dues and on returns from its investments. Each year, as the Association's activities increase and its influence grows, its budget expands to enable it to fulfill its mission.

Recognizing the importance of providing adequately for this valuable work, members have asked how best to make bequests to the Association. The wording below will serve for most purposes. Bequests may be monetary, or in property or securities. Normally, when received,

they are invested to produce permanent income and to increase the stability of the Association. Bequests to the National Parks Association are deductible for federal estate tax purposes.

"I give and bequeath the sum of . . . dollars to the National Parks Association, a non-profit corporation incorporated under the laws of the District of Columbia, to be used by that Association to further the purposes for which that Association is organized."

A Quick Glance at . . .

HIGH WORLDS OF THE MOUNTAIN CLIMBER, by Bob and Ira Spring, with text by Harvey Manning. Superior Publishing Co., Seattle, 1959. 142 pp. \$10.

A beautiful photographic volume in which the Spring's have captured in the camera lens the essence of the great bulk, pinnacle or crevasse which represents the climbing obstacle. Covers generally the entire western range of the United States, Canada and Alaska.

NATURE IS YOUR GUIDE, by Harold Gatty. E. P. Dutton & Co., New York, 1958. 287 pp. Illus. \$4.75.

An intriguing record of ways in which to find your way on land and sea by observing nature, with theories or methods used by the primitives. By a highly qualified author—his *The Raft Book* was standard equipment in U.S. Army life rafts in World War II.

Special NPM Reprints

Roads in Our National Parks, by Harold Bradley.—A six-page reprint from the February 1959 NATIONAL PARKS MAGAZINE discussing the effects of appropriate road standards on national park values. Includes photographic comparisons of "good" and "bad" roads in terms of national parks. Available from National Parks Association at 15 cents a copy. Bulk prices on request.

A National Policy for National Parks and Monuments. A six-page reprint from the January-March 1957 issue of NATIONAL PARKS MAGAZINE presenting definitions of national parks and national monuments and sixteen applications of principles for appropriate use and preservation of national park areas. Available from National Parks Association for 15 cents a copy. Bulk prices on request.

Our National Parks in the Year 2000, by Marion Clawson.—An eight-page reprint from the July 1959 NATIONAL PARKS MAGAZINE which raises the question, "What can we do now to plan for the nearly 1¼ billion visits expected to our national parks alone by the beginning of the twenty-first century." The article points out that unless we do some far-sighted planning, these great areas of unspoiled nature may begin to look like Coney Island on a hot summer Sunday. Available from NPA offices for 20 cents a copy. Bulk prices on request.

The Parks and Congress

86th Congress

Action Taken

H.R. 915 (Reuss) **S.894** (Wiley) To establish an Ice Age National Park within 34 Wisconsin counties where outstanding features of continental glaciation are found. Budget Bureau has recommended it not be enacted at this time.

H.R. 1932 (O'Neill) **S.1460** (Saltonstall and Kennedy) To create the Minute Man National Historical Park, Massachusetts, not to exceed 750 acres in size. Would include sections of the Lexington-Concord Road, used by the Minute Men at the outset of the Revolutionary War to rout the British. The 8-acre Minute Man Historic Site, set aside earlier this year, would be included. Interior Department has recommended enactment of bill, stating it should be "considered without delay" as growth "is proceeding at an alarming pace."

H.R. 2331 (Foley) To establish a C&O Canal National Historical Park along a 186-mile stretch of the canal between Great Falls and Cumberland, Maryland. Reported favorably by the full Interior and Insular Affairs Committee of the House.

H.R. 3610 (Blatnik) To amend the Federal Water Pollution Control Act to expand existing grant construction programs for municipal sewage treatment works. Doubles maximum federal grant to any city to \$500,000, and maximum total annual authorization for federal grants to \$100 million. Also enables adjacent communities to undertake joint treatment projects. Passed the House on June 9 by a record vote of 254 to 142. Referred to Subcommittee on Flood Control—Rivers and Harbors of the Senate Committee on Public Works.

H.R. 5813 (Metcalf) **S. 1575** (Magnuson) Amends the Act of 1958 to increase the amount of money for studies of the effects of insecticides, herbicides, fungicides and other pesticides upon fish and wildlife, from \$280,000 to \$2,565,000 annually. The Department of Interior endorsed legislation to increase research, but stated that no specific authorization should be listed in the Act. Assistant Secretary for Fish and Wildlife, Ross Leffler, in his report, stated "Investigations which have been made under existing legislation clearly indicated a problem of much greater magnitude than originally contemplated and show that the existing authorization is inadequate."

H.R. 7045 (Bonner) **S. 1899** (Magnuson) To establish the Arctic Wildlife Range, Alaska. Hearings were held by both House and Senate. Testimony was predominantly favorable except for definite reservations ex-

pressed at their respective hearings by Alaskan Senators Gruening and Bartlett and Congressman Rivers.

S.713 (Bennett and Moss) To revise the boundaries of Zion National Park in Utah by adding approximately 3500 acres. Favorable report received from Department of Interior and Budget Bureau.

S.812 (Humphrey et al.) To authorize the establishment of a Youth Conservation Corps to provide outdoor training and employment for young men and to advance the conservation, development and management of national resources of timber, soil, and range and of recreational areas. Total enrollment not to exceed 150,000. Hearings were held in a special subcommittee of the Committee on Labor and Public Welfare, and the bill was favorably reported to the full committee.

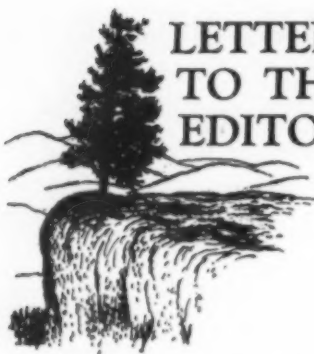
S.1001 (Douglas) Authorizes acquisition of up to 5000 acres on the southern shore of Lake Michigan between Ogden Dunes and Dunes Acres for the Indiana Dunes National Monument. After hearing testimony which ran overwhelmingly in favor of the bill (see page 13, July issue), and following an inspection trip by two members of the Public Lands Subcommittee, this group voted four to three against reporting the bill. Supporting the bill were the two members of the inspecting party, Senators Gruening and Moss, joined by Senator Neuberger. Opposing the measure were Senators Anderson, Dworshak, Allott and Martin. The eighth member of the subcommittee, Senator O'Mahoney was not present.

It now appears that unless the bill is called out by the full Senate Interior and Insular Affairs Committee, it will be dead for this session.

S.1123 (Humphrey et al.) To establish a National Wilderness Preservation System. Received favorable report from Department of Interior. No action presently scheduled.

S.1185 (Magnuson and Neuberger) Provides for preservation of historical and archeological data which might otherwise be lost as the result of construction of a dam. (Superseded S.575 reported in March issue.) Passed without amendment by Senate and cleared for House.

S.1526 (Neuberger and Morse) To establish the Oregon Dunes National Seashore. Not to exceed 35,000 acres of land, submerged lands and adjoining waters on the Oregon coast. Hearings are expected to be held in Oregon in October.



LETTERS TO THE EDITOR

National Parks History Debated

Please accept a comment on Mr. Tilden's "National Park Concept" (May 1959 issue). Louis Cramton and I proved long ago that the Yellowstone campfire as the origin of the extraordinary idea of conserving park areas in this country, is a myth. It was good publicity in the early days of the National Park Service and thus had its use. Today we need to acknowledge the truth about the origin of this idea, and though, *de jure*, Yellowstone became the first national park, it was not the first to receive national recognition as a conservation area.

The question is, which park, *de facto*, was the first to receive such national recognition? The answer is Yosemite, and it was Frederick Law Olmsted, Sr. whose influence brought passage by Congress of the Conness bill, which Lincoln signed in 1864. This, then, was the birth of the great American idea which has resounded throughout the world. In the subsequent development, Langford certainly played a useful role. Actually, Cooper's, Catlin's, Thoreau's, and Emerson's ideas were all links in the chain of thoughts which brought about the trend of conservation, but Olmsted was the first to find and effect a practical solution. Lest this be forgotten, a plaque in Yosemite commemorating Olmsted, a truly great man, would be a worthy undertaking.

Hans Huth
Chicago, Illinois



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WOLF SPRINGS FOREST MINONG, WISCONSIN

For the past several years I have tried to locate the original sites of Yosemite's early photographs. Two captions used in the May 1959 issue of your interesting magazine attracted my attention.

On page 2 the caption for the Grizzly Giant reads, "thought to be the first (photo) ever made of a Sequoia." Watkins apparently did not visit the Big Trees until 1861. He was preceded by Charles L. Weed, who, on July 2 or 3, 1859 took a picture of the main trunk of the Grizzly Giant. Elsewhere it is claimed that sketches of a Sequoia gigantea growing in the Calaveras Grove were made from a daguerreotype, so that we cannot claim that even Weed's picture was the first photograph either.

On your back cover you carry another of Watkins' fine pictures. It is difficult to reach this spot today because of the dense manzanita. The tree has gone but remnants of the base can still be seen. In this caption you state: This "photograph . . . was probably one of those submitted to Senator John Conness in February 1864 . . ."

First the inclusion of clouds indicate a later date, but again we know Weed took this same view in July 1864 and at that time the tree had a lower limb. This fir has evidently been trimmed as a marker of some sort. Perhaps by Hutchings who had settled in the Valley that summer! These are small differences, but the kind of clue we continually look for.

Mary V. Hood
Los Angeles, California

Congratulations on your historical issue. Did note just one little slip in a picture caption. Thomas Moran was with the Hayden party in 1871, not with Barlow and Heap. Although the two parties did travel together much of the time, Moran was Hayden's man.

Weldon F. Heald
Tucson, Arizona

• Our source of information on this point (*Romance of the National Parks*, by Harlean James, The Macmillan Co., N. Y., 1939, p. 15) seems to have been in error. Louis C. Cramton in his *Early History of Yellowstone National Park and its Relationship to National Park Policy* makes it clear that Moran was with Hayden's Geological Survey party as Mr. Heald points out, rather than with the Army Engineer expedition under Barlow and Heap.

—Editor.

Supermarket in Yellowstone

Suburbia's symbol—the supermarket—has come to Yellowstone National Park! This revelation as explained in the enclosed clipping from *Supermarket News* was startling and most disappointing to those of us who have come to love the old log general store.

Permitting park concessions to operate stores which are equal to those found in our urban shopping centers is not congruent with or necessary for outdoor recreation. Plans appear to be in the offing to replace all the stores in Yellowstone Park with similar supermarkets. Someone seems to have forgotten that concessions are only for necessary accommodations and that buildings should be designed to blend with the environment.

John W. Barry
Fort Eustis, Virginia

Tourists Ruin Bears

I am writing in reference to the June "News Brief" concerning the death of a child in Jasper National Park.

Canadian National Park wardens sensibly carried carbines with them in the larger, wilder parks, for a number of good reasons. More than one bear, however, had to be shot because an unknowing visitor started him on the habit of being hand-fed, and soon the bear lost interest in foraging, and if the handouts were skimpy or lacking turned to man-made garbage pits and barrels for an easy handout. As a result, he felt it his right to intrude on humans, often became dangerous, and had to be shot. Thus the tourist unwittingly signed the death warrants of many bears, which were one of the reasons the visitor came to Jasper in the first place.

Brian S. Ward
Albuquerque, New Mexico

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FOR YOUR CONVENIENCE classified advertising will now be carried in NATIONAL PARKS MAGAZINE. Take advantage of the opportunity to buy, sell, announce or seek out camps, guest ranches, resorts, camping equipment, guide services, camping companions, cameras, binoculars, books, tents, trailers, stoves, sleeping bags, and the like. Orders must be received a month before publication date.

Mill, Harbor or Dunes?

The area proposed as Indiana Dunes national monument is the only really significant natural beauty spot left in the midwest. The chief opposition to the proposal comes from various Indiana state officials and representatives in Congress and from industrial interests. The land is owned by two steel companies—Beth-

lehem Steel and National Steel—who plan to exploit it with a huge steel plant. This, combined with the state's plan to build a harbor through the heart of this magnificent region (at federal cost), reveal the objectives of the opposition—regional gain at the expense of all the American people.

The culmination of the struggle is im-

minent. When it is ended, let us hope that we will see no more ugly mills belching forth more smoke and fumes. For truly, no experience excels the joy of exploring cool woods, or viewing a deep blue lake through nature's frame, or lying beneath the warm sun upon timeless sands.

Robert Newgard
Chicago, Illinois

The Simple Solution

by Bud Boyd

It was spawning time and the great salmon were ugly now. They were blotched with red, and patches of yellow fungus, but finally the male and female paired.

They found a spawning riffle where the water ran clear and pure above the gravel, so they worked there. The female turned upon her side and with rapid thrusts of her body, dug a trench. Then she spurted eggs into the hole, and in a flash the male was there to fertilize the spawn.

Even as the swift current washed gravel over the eggs, small trout and steelhead charged the nest to gulp greedily, and the male fish drove them off. So this was how the salmon spawned. Three days later they were finished. Then the weakened fish headed up the stream. They floated to the bank and lay gasping in the willows. Then they died and their bodies decomposed to fill the water with a wealth of richness for the little fish to eat.

★ ★ ★

Yet even as the big fish died, a shred of life was stirring in the gravel. The spawn was moving and within a few short weeks a microscopic wriggling thread was attached to every egg. The new fish lived there, secure in the gravel, but as the egg sacks disappeared, the tiny fry emerged. They worked up through the gravel bed and were attacked by feeding trout.

But some lived. They darted to the shallows where crayfish pulled at them with bungling forceps. Some still survived, and later, after they had grown, the fishing season opened and anglers caught these fish and called them trout. Then later they were prey to hungry herons, and raccoons fished diligently with dripping paws as they waded in the shallows.

Still, some fish survived and there came a day when instinct made them take a journey. They didn't know why, but suddenly they drifted with the rushing river. They worked downstream, holding themselves backwards in the current and following the river edge.

They went past irrigation ditches which pulled many of the tiny fish inside, to leave them high and dry inside the fields. And other fish were trapped by intake screens where great pumps sucked the water. But a few fish made it and as they reached the delta, they were seared and blinded by the wastes and acids of the cities.

★ ★ ★

So more fish died. But a few worked to salt water and their instincts pulled them in a circle. They were ferociously hungry so they headed south, and they chased the schools of herring and anchovies. Being in the thick of these schools

of bait fish, some salmon were netted when purse seiners came. Those which survived were forced to look for other schools of fish to feed upon. And always above them and below them were the hooks and lines. Spoons glittered and flashed in the semi-darkness and bait fish with hooks inside them were swimming, limping, teasing at them. Many salmon struck and this was the end of them.

But time passed swiftly in the ocean, and the tiny fish were giants now. They headed north once more, and an instinct older than the pyramids made them gather off the bay. Fishermen waited for them there, and so did otters and sea lions, and seals and porpoises and sharks.

★ ★ ★

But one fish made it. Out of the hundreds of thousands of eggs spawned in the gravel years before, just one fish had survived. He entered the Golden Gate and fought his way through polluted water that stung his eyes and gills, and left him gasping. He headed up the stream, ignoring the lures and spinners cast by fishermen. He went to his parent stream and found a mate, but the gravel bed of his birth had been dredged away. So the pair of salmon headed further up the river. They fought a dam, and then when they'd struggled through a maze of fallen logs and debris they found a riffle, so they spawned there.

It was the only place left, so as they spawned, they uncovered and killed the eggs of other salmon. But they had done everything they could; they had made the journey home and were ready to die.

★ ★ ★

So a few weeks ago some lobbyists and legislators met in Sacramento to ponder the diminishing salmon runs.

"Why it's simple," they reasoned. "The fault is due to sea lions which are eating the fish."

It was as simple as that. So they drafted a bill that said let's kill the sea lions. Then with the problem solved they turned their tremendous powers of concentration to other, weightier matters.

This article was originally published in "The Woodsman" column of the *San Francisco Chronicle* under the title "The Salmon's Cycle Fraught With Peril." It is presented here with the kind permission of the author.

BACK COVER: A panoramic view of the Great Basin range and valley topography typical of the proposed park in eastern Nevada, where the desert lies only five miles from snow and glacier.—Photo by Fehr and Lambert.



Great Basin Range, Nevada

